



STATE OF MONTANA
DEPARTMENT OF ADMINISTRATION
STATE INFORMATION TECHNOLOGY SERVICES



SCEG
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EXHIBIT 3

Mobile Government Initiative

INTRODUCTION

Mobile computing devices are almost everywhere we look. According to the U.S. General Services Administration, 96% of 18-29 year olds own a cell phone¹. The increasingly widespread use of mobile devices signals the changing needs and expectations of the public. This presents new opportunities to provide mobile applications to improve the efficiency and effectiveness of government service delivery. In addition, mobile computing can propel new government services/service delivery as well as provide improved transparency through increased access and use of information.

The available choices for staying connected while on the go are many — smart phones, netbooks, tablets, laptops, and a growing list of other devices can access the Internet using Wi-Fi and cellular wireless services. At the same time, the devices we carry are becoming ever more capable, and the differences between them more blurred. Mobile computing has become an indispensable part of day-to-day life in the workforce, and is a key driver in the increasing ease and speed with which it is possible to access Internet provided services.

It is not surprising that younger workers are taking advantage of mobile applications — they grew up in a world of pervasive mobile communication. Younger workers are pushing many enterprises to embrace mobile devices and applications. They often prefer to use consumer-oriented mobile computing devices in the work environment and they adapt quickly to new technology.

OPPORTUNITIES FOR USE

The sky is the limit when it comes to opportunities for mobile applications for citizen engagement and increases in efficiency and effectiveness of government services. Mobile devices are equipped with features; such as built in GPS, photo/video cameras, and multi-touch interfaces, which further extend the possibilities to interact. We have captured a few projects that are in the initiation phase within Montana and others that are already operational in other states.

- **Documentation Distribution** — The State Information Technology Services Division, starting with the last legislative session, provided all of the required publications in electronic format. This reduced the costs of printing, and ensured that anyone could have immediate access to the information without carrying documents around. The Legislative Services Division will expand their Paperless Pilot initiative through increasing information and training to encourage greater participation.
- **Tourist Travel Information** — Provide the ability to find specific attractions, lodging, recreational, and restaurants based on the GPS location. The application can then use

¹ <http://www.gsa.gov/portal/content/288913>

social media services to tell friends about activities and provide the ability for submitting reviews. The individuals can even use their built in camera to share pictures.

- **Land Ownership Information** – Provide easy access to publicly available land ownership information and property assessments. GSC Research of Missoula produced an application for Android based smartphones to access the State's land parcel mapping service. This service is widely used by the real estate communities.
- **Recreational Information** – Provide access to view hunting and fishing regulations and designate public/private lands based on the individual's location. The application could provide the ability to reserve and pay for a campsite in the state parks. Additionally, the application might provide locations and information on hiking, cross-country skiing, snowmobile trails.
- **Public Safety** – Provide information relevant to the individual's location. This information could be weather, road conditions, or any incidents that would impact the public.
- **Take Government to the People** – Provide the ability for state employees to service citizens outside of the traditional government buildings.
- **Noxious Weed reporting** – Provide the ability for individuals to report noxious weeds by providing the ability to photograph and tag with the exact location of the sighting.
- **Remote and Field work** – Provide the ability of employees to securely create and update information from the field. Department of Labor is using an application for building inspectors to remotely input inspection reports, issue permits, and schedule inspections. The Department of Justice is using remote terminals in highway patrol cars to complete accident reports, verify insurance, and verify driver's records.

DRIVERS

The use of mobile computing devices will continue to grow. Anytime, anywhere access to information and applications is a key factor driving use of mobile devices and applications in the workplace today. Some of those applications include email, mobile collaboration, and office productivity. Employees have grown accustomed to having ubiquitous information access in their personal lives and expect the same in their professional lives. In the past, employees would compartmentalize their personal and work lives in order to protect their personal time from job encroachment. Now, the opposite is true. Many employees are now moving seamlessly between work and personal life and expect that their employers will support this new work paradigm. The Mobile Workforce Report suggests that 1 in 3 workers regularly get up during the night to check email on their phone.²

For many employees, a mobile work environment is now an expectation, analogous to the expectation that their employer will provide Internet access. Therefore, many organizations often deploy mobile devices and applications without any up-front justification or planning.

² <http://www3.ipass.com/about/mobile-workforce-report/archive/mwr-052411/>

It is not just employees that are driving the use of mobile applications; citizens are also looking to the government to increase services via mobile applications. It is predicted that by 2013 users will more frequently access the Internet via mobile devices than by traditional desktops. In addition, Pew Research Center noted that low-income teens are more likely to use cell phones to access the Internet.³

One of the goals of the 2012 State Strategic Plan for Information Technology is to provide citizens and employees of the State access to information however and whenever they need it.⁴ The State of Montana is striving to deliver greater access to information via the Web and mobile devices, in a cost-effective and efficient manner. The ability to meet citizens' expectations of useful and relevant e-government services with reasonable investment and manageable risk is crucial to the continued success of providing services.

BENEFITS

Mobile applications provide additional opportunities to deploy compelling e-government services. Improved public access to timely and relevant State information will result in increases in convenience and citizen engagement.

Deployment of mobile applications will improve communication between State staff that is geographically disbursed and highly mobile. It will also improve efficiency and effectiveness of data-intensive application services, by enabling access to services regardless of location, including geographically remote areas. Further, it will improve service responsiveness by providing State staff with real-time access to critical information resources, without the need to be physically located in their offices.

RISKS

Mobile applications are a tool that when used appropriately provide for the ability to promote citizen engagement and increases in efficiencies and effectiveness in the state's ability to provide services. However, like with any tool there are risks that must be addressed. The infrastructure to support the delivery of mobile applications is still maturing, as are the devices. The rate of change in the technology is also a risk, as the applications may require constant modifications to remain relevant on tomorrow's devices.

The infrastructure to support the mobile delivery includes wireless services provided either through Wi-Fi or cellular based services. Wireless provided via Wi-Fi is characterized by relatively high speeds and with usually no data usage limits. Its availability is limited, and usually only within a couple hundred feet of an organization that provides public Wi-Fi access. Cellular based wireless services are slower, commonly having data usage limitations, require payment for services, and access is very limited or non-existent in certain rural areas of the state. The result is not everyone, in all places will be able to benefit from mobile applications. This may change in the future as cellular providers capitalize on the Federal Communication Commission's Connect America Fund.

³ <http://www.pewinternet.org/Reports/2010/Teens-and-Mobile-Phones/Chapter-2/Part-4.aspx>

⁴ http://sitsd.mt.gov/content/stratplan/statewide/2012_State_Strategic_Plan_for_IT.pdf

The devices themselves present risks and additional costs. The devices are supported by multiple operating systems, such as Apple iOS, Google Android, and Microsoft Windows for Mobile, to name a few. Within those, there are sometime multiple versions depending on the device capabilities. Unfortunately, a native mobile application, unless it is developed for all potential variations, may alienate some users.

The pass of change in mobile computing is extreme. In 2011, 72% of Apple Inc.'s total revenue came from devices that could not be purchased just five years ago.⁵ The first tablet computer, the Apple iPad, was released on April 3, 2010. As of January 2012, not even two years later, the Pew Research Center estimates that 19% of adults in the U.S. own a tablet device.⁶ That is nearly double before the start of the 2011 holiday season. To combat the risk of continuous change, resources are continually applied to ensure the relevancy of the tools for the citizens and the state employees.

These risks are not to be viewed as reasons to not implement mobile applications. They do however, point to the fact that while there are technical issues, the deliberative decision on how and when to move forward must come from the agency program owners.

POTENTIAL COSTS

Because the complexity for the mobile applications can greatly vary, it is difficult to determine the costs. Those complexities include modifications or replacement of existing applications, which may not support a coexistence with mobile applications. Some of the examples listed include information or processes from a combination of organizations and information sources. Those organizations and information sources may not be able to communicate or share information today.

While Montana may be able to capitalize on work already accomplished via other states, it is possible that a number of opportunities may require the development of customized applications. Another cost consideration is the recruiting, training, and retention of employees with the skills necessary to implement a mobile application strategy. Training will be required to ensure that the employees can adapt to the changes in the tools, hardware, and infrastructure required to support mobile applications.

APPROACH

The starting point in approaching the use and implementation of mobile applications is to identify organizational needs in meeting their mission, goals, and objectives. Once that is completed, potential pilot projects can be identified.

In addition to identifying needs and potential projects, the state needs to address policies and procedures to appropriately implement mobile application strategies. These will include, but are not limited to, mobile device/application procurement, management of personally and state owned mobile devices, management of applications, and best practices regardless of who

⁵ <http://www.nytimes.com/2012/01/25/technology/apples-profit-doubles-as-holiday-customers-snapped-up-iphones.html?pagewanted=all>

⁶ <http://pewinternet.org/Reports/2012/E-readers-and-tablets/Findings/Tablet-and-ebook-reader-ownership-surge-in-the-holiday-giftgiving-period.aspx>

“owns” the device. The state may need to revisit existing technology and human resource policies for relevance regarding mobile devices.

Along with identifying opportunities and defining the policies and procedures, other activities that will increase the effectiveness and efficiency are:

- Continued education on the benefits of mobile use to leadership and program staff;
- Development of criteria to identify projects and implementation strategies;
- Encourage alignment of technology investment decisions with organization mission and goals; and
- Encourage increase interagency collaboration to accelerate deployment.

SUMMARY

Mobile devices are opening up a new and exciting world of opportunities. To maximize the value of mobile applications, the business requirements must drive the development and deployment of mobile services. Additionally, the costs and sources of funding must be identified, as there may not be an immediate cost savings to the State.